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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,241	11/19/2003	Masato Nagawa	Fukuyama-4 (2003P282523)	6885
26479	7590	06/15/2005	EXAMINER	
STRAUB & POKOTYLO 620 TINTON AVENUE BLDG. B, 2ND FLOOR TINTON FALLS, NJ 07724			CUEVAS, PEDRO J	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,241

Applicant(s)

NAGAWA ET AL.

Examiner

Pedro J. Cuevas

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/19/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-3, 14-21, and 24-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 2 recites the limitation “the first and second sections” in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim.
4. Claims 2-3 and 14-15 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. The following is an example of such errors: “ ... and provided by a weight balance adjustment of providing a load on the side of the lower one of the rotation momentums ... ”.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4-10, 22-23, and 26-32 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,134,710 to Atherton.

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Atherton clearly teaches the construction of a simultaneous plural-directional flow motor comprising:

- a vertical shaft (20) disposed vertically and rotatably;

- a rotatable horizontal shaft (36) rotatably and perpendicularly penetrating the vertical shaft;

- a first and a second plate-like grooved blade member (56) provided on the horizontal shaft on the opposite sides of the vertical shaft;

- a drive power mechanism (14) operable with the rotation of the vertical shaft;

- a restricting mechanism for restricting the rotation of each horizontal shaft to a range of 90 degrees, and in which the restricting mechanism includes a first and a second shock absorbing contact members (60) provided on the horizontal shaft on the opposite sides of the vertical shaft, and a first and a second contactable member (54) provided on the vertical shaft and capable of being contacted by the first and second contact members;

- stoppers (52) projecting from the vertical shaft for stopping the rotation the first and second blade members in contact with the first and second blade members; and

- a bearing (24) for alleviating frictional resistance with respect to the horizontal shaft;

wherein the first and second blade members are secured to the horizontal shaft such that their plane orientations are deviated from each other by an angle of 90 degrees in the peripheral direction of the horizontal shaft (Figures 2 and 3), and are rocked about the horizontal shaft in an interlocked relation to each other between the vertical and horizontal directions (Figure 2); and

the plurality of horizontal shafts are helically disposed as respective stages on the vertical shaft at vertically different positions thereof (Figure 1), and in a predetermined angular interval deviation from one another in the peripheral direction of the vertical shaft, said angle obtained by dividing 180 degrees by the number of stages.

7. Claims 11-12 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,134,710 to Atherton in view of U.S. Patent No. 6,524,078 B1 to Brooks et al.

Atherton discloses the construction of a simultaneous plural-directional flow motor as disclosed above.

However, it fails to disclose a rotation setting mechanism for setting the direction of rotation of the vertical shaft.

Brooks et al. teach the construction of a pond pump comprising reversing means (pegs 25 and detent 60) for the purpose of preventing rotation in the opposite direction.

It would have been obvious to one skilled in the art at the time the invention was made to use the pegs and detent disclosed by Brooks et al. on the simultaneous plural-directional flow motor disclosed by Atherton for the purpose of preventing rotation in the opposite direction.

8. Claims 13 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,134,710 to Atherton in view of U.S. Patent No. 5,159,876 A to Olin.

Atherton discloses the construction of a simultaneous plural-directional flow motor as disclosed above.

However, it fails to disclose oil hydraulic bumpers provided on each horizontal shaft for setting the plate orientations of the first and second blade members.

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Olin teach the construction of a bale discharging pusher for baling machines comprising dual action hydraulic cylinders (22) actuated to open rear gate portion (14) for the purpose of reducing the danger of machine damage from engagement with the bale following discharge and increasing bailing efficiency by reducing the number of maneuvers normally associated with a bale discharge.

It would have been obvious to one skilled in the art at the time the invention was made to use the dual action hydraulic cylinders disclosed by Olin on the simultaneous plural-directional flow motor disclosed by Atherton for the purpose of mechanically actuating a gate, or plate.

9. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,134,710 to Atherton.

Atherton discloses the claimed invention except for:

the weight balance adjustment being made such that the difference between the rotation momentums generated on the first and second sections by gravitational forces is at most no higher than 0.2 times the higher one of the rotation momentums generated on the first and second sections by gravitational forces;

the rotation momentum difference is set by making the weights per unit area of the first and second sections different;

the weights per unit area of the first and second sections are made different by providing a load, or setting different thicknesses, to either one of the first and second sections;

for reducing the inertial momentum which is increased at the time of the weight balance adjustment, the position of the load disposed in the weight balance adjustment is

set to be within 0.1 times the width of the load provision side member from each horizontal shaft.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the rotation momentum difference by changing the weight balance adjustment characteristics of the first and second sections, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

It would have also been obvious to one having ordinary skill in the art at the time the invention was made to set the rotation momentum difference by changing the weight balance adjustment characteristics of the first and second sections, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

10. With regards to claim 18, it would have been obvious to one having ordinary skill in the art at the time the invention was made to set the rotation momentum difference by changing the weight balance adjustment characteristics of the first and second sections by forming the first and second sections from materials of different specific gravities, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

11. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,134,710 to Atherton in view of U.S. Patent No. 4,346,305 to White.

Atherton discloses the construction of a simultaneous plural-directional flow motor as disclosed above.

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However, it fails to disclose an auxiliary wing extending in a direction perpendicular to each horizontal shaft.

White teach the construction of a governor for fluid current motor comprising an auxiliary wing (24) extending in a direction perpendicular to an horizontal shaft for the purpose of orbiting about support (14) as vane (12) rotates.

It would have been obvious to one skilled in the art at the time the invention was made to use the auxiliary wings disclosed by White on the simultaneous plural-directional flow motor disclosed by Atherton for the purpose of orbiting about a support as main vanes rotate.

Conclusion

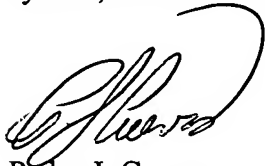
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (571) 272-2021. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Pedro J. Cuevas
June 10, 2005



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